

**From:** [Forsgren, Lee](#)  
**To:** [Lightfoot, Robert M. \(HQ-AI000\)](#)  
**Cc:** [Coleman, Sam](#); [Kelly, Albert](#); [Bowman, Liz](#); [Gray, David](#); [Zurbuchen, Thomas H. \(HQ-DA000\)](#)  
**Subject:** Re: Follow-up: Houston DC-8 flight  
**Date:** Friday, September 8, 2017 8:18:09 PM

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Robert

I think you have taken a very appropriate response. Let's wait and see the results of Dr. Zurbuchen and David's conversation.

We really appreciate your rapid and professional response today!

Regards  
Lee

Sent from my iPhone

On Sep 8, 2017, at 9:12 PM, Lightfoot, Robert M. (HQ-AI000)  
<[robert.m.lightfoot@nasa.gov](mailto:robert.m.lightfoot@nasa.gov)> wrote:

Thanks Lee.

I have cc'd Dr Thomas Zurbuchen, our Associate Administrator for Science Mission Directorate. I have asked him to get our earth science applications folks to get in touch with David ASAP.

We do not want to be a distraction to your efforts and thought we were synced up but apparently that isn't the case. If this is not helpful after they talk with David just let us know.

Thanks,  
Robert

On Sep 8, 2017, at 8:42 PM, Forsgren, Lee <[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)> wrote:

Robert,

Below are several responses from the Federal Environmental on Scene Coordinator Sam Coleman and Albert "Kell" Kelly the EPA Administrator's Representative who is working directly with the Texas Secretary of Environmental Quality.

It appears that the only way NASA's flight might be considered helpful would be under the conditions Sam laid out below.

It might be appropriate for the NASA earth science personnel to reach out to David Gray to answer the questions regarding the capabilities and data quality to see if a flight would be of any benefit

to the restoration process.

If you have any questions or need additional information please just let e know

Thanks,  
Lee

Sent from my iPhone

Begin forwarded message:

**From:** "Coleman, Sam" <[Coleman.Sam@epa.gov](mailto:Coleman.Sam@epa.gov)>  
**Date:** September 8, 2017 at 7:58:46 PM EDT  
**To:** "Kelly, Albert" <[kelly.albert@epa.gov](mailto:kelly.albert@epa.gov)>, "Forsgren, Lee" <[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)>, "Wagner, Kenneth" <[wagner.kenneth@epa.gov](mailto:wagner.kenneth@epa.gov)>, "Gray, David" <[gray.david@epa.gov](mailto:gray.david@epa.gov)>  
**Cc:** "Forsgren, Lee" <[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)>, "Bowman, Liz" <[Bowman.Liz@epa.gov](mailto:Bowman.Liz@epa.gov)>, "Jackson, Ryan" <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)>, "Carey, Curtis" <[Carey.Curtis@epa.gov](mailto:Carey.Curtis@epa.gov)>, "Gray, David" <[gray.david@epa.gov](mailto:gray.david@epa.gov)>  
**Subject: Re: Follow-up: Houston DC-8 flight**

Thanks Lee for running this to ground. I think this should be something that is actually useful to the response. One idea is to have them fly some of the facilities that are requesting enforcement discretion from their consent decrees. This should not impact the granting of discretion, and we can get some data with respect to emissions. This assumes that the technology is reliable. ORD should opine on the reliability of the data from this technology. However, if we cannot assure ourselves of reliable data, I think this is a distraction that we do not have time to get involved in.

I am adding David Gray to check this out with the State concurrently with ORD thinking about the technology.

Samuel Coleman, P. E.,  
Deputy Regional Administrator

214.665.2100 Ofc  
214.665. 3110 Desk  
214.665.2016 Cell

[Coleman.sam@epa.gov](mailto:Coleman.sam@epa.gov)

Sent from my iPhone

On Sep 8, 2017, at 5:30 PM, Kelly, Albert  
<[kelly.albert@epa.gov](mailto:kelly.albert@epa.gov)> wrote:

Thanks Lee. We appreciate you

Sent from my iPad

On Sep 8, 2017, at 5:29 PM, Forsgren, Lee  
<[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)> wrote:

Kell,

I will stand by for Sam to provide his input but will be ready to go back to Robert Lightfoot and have him waive off the Flight as soon as possible.

Thanks for the quick turnaround.

Regards,  
Lee

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**From:** Kelly, Albert  
**Sent:** Friday, September 8, 2017  
6:26 PM  
**To:** Forsgren, Lee  
<[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)>  
**Cc:** Bowman, Liz  
<[Bowman.Liz@epa.gov](mailto:Bowman.Liz@epa.gov)>; Jackson, Ryan <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)>; Coleman, Sam  
<[Coleman.Sam@epa.gov](mailto:Coleman.Sam@epa.gov)>; Carey, Curtis <[Carey.Curtis@epa.gov](mailto:Carey.Curtis@epa.gov)>  
**Subject:** Re: Follow-up: Houston DC-8 flight

I have forwarded to Sam Coleman who was unaware of this. It is the view of all parties here (EPA, FEMA, TCEQ) that this information is not helpful or usable and that

we should waive them off. I have copied Sam on this and will allow him to confirm or amend but I believe the best course is to not have this done.

Sent from my iPad

On Sep 8, 2017, at 5:19 PM,  
Forsgren, Lee  
<[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)> wrote:

Liz and Kell,

Here is Robert Lightfoot (Acting NASA Administrator) response to our conversation. We might want to touch Terry Keating and Arturo Blanco and see if in fact they actually asked or NASA's help? It is clear that if we want to waive them off doing Harvey related monitoring we still can do so with relative ease.

Let me know if you want me to go back to Robert and vector them in a different direction.

Regards,  
Lee

**D. Lee Forsgren**

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**From:** Lightfoot,  
Robert M. (HQ-  
AI000)  
[<mailto:robert.m.lightfoot@nasa.gov>]

**Sent:** Friday,  
September 8, 2017  
5:54 PM  
**To:** Forsgren, Lee  
<[Forsgren.Lee@epa.gov](mailto:Forsgren.Lee@epa.gov)>

**Subject:** FW: Follow-  
up: Houston DC-8  
flight

Lee,

See below. Looks  
like we were getting  
ready to do some  
test flights for a  
future mission and  
our PI thought we  
could provide some  
data to support the  
Harvey recovery  
effort. As you can  
see below, our team  
reached out to see if  
this would be helpful  
and if so, what

advice on the  
sampling plan for the  
flight.

Hope this is helpful  
and glad our team  
was proactive in  
recognizing they  
could turn a test  
flight into something  
to provide some real  
data, and it appears  
to have been  
coordinated.

Shout if you or Scott  
have any  
questions.....my cell  
is 256-508-3778.

Thanks,  
Robert

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**Subject:** Follow-up:  
Houston DC-8 flight

SMD/Earth Science is  
preparing to send  
the DC-8 to spend  
several hours in  
southern Texas  
sampling  
atmospheric trace  
gases and aerosols -  
these include a full  
suite of Volatile  
Organic Compounds  
(VOCs) and several  
air toxics.

This effort is part of  
preparations for an  
upcoming campaign  
of the Atmospheric  
Tomography Mission

(ATom), which is an Earth Venture-Suborbital mission. The ATom science team had a planned DC-8 test flight on September 14<sup>th</sup> – yesterday afternoon (Sept 7), the ATom PI Steve Wofsy asked Headquarters if it would be OK if they flew from Palmdale to Houston to sample the atmospheric composition during this test flight. We agreed that this would be a good opportunity to support the Hurricane Harvey recovery effort.

This morning Barry Lefer (Tropospheric Composition Program Manager in SMD/Earth Science) contacted colleagues at NOAA, EPA, the Texas Commission on Environmental Quality (TCEQ), and the City of Houston to make them aware of this effort and to ask for any advice regarding our sampling plan. We have had good coordination and collaboration with all of these entities.

The primary people Barry coordinated with at EPA on this were:

- Terry Keating, EPA Office of Research and Development (formerly with EPA's Office of Air and Radiation); Terry has been a long-term collaborator with NASA on Earth science activities for research and applications
- Arturo Blanco, EPA Region 6 (South Central US). Arturo is part of the EPA Rapid Response Team; he was formerly the Bureau Chief for Air Quality Control for the City of Houston.

If you need it, Barry can also provide you with the primary people he contacted at NOAA, TCEQ, and City of Houston.

Over the weekend, he will provide the list of sensors that are part of the DC-8 payload – and, when the flight plan is more firm, he can provide information on that.